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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/783,308 | 02/15/2001 | Fritz Juergen Hohn | 016790/0411 | 2615 |

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EXAMINER

ANDERSON, BRUCE C

ART UNIT PAPER NUMBER

2881

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/783,308

Applicant(s)

HOHN, FRITZ JUERGEN

Examiner

BRUCE C ANDERSON

Art Unit

2881

-- The MAILING DATE of this communication appears on th cover sheet with the correspondence address --

Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9 and 10 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2&4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danilatos (006) in view of Saffron (391).

Danilatos (006) discloses in Figure 1 the well known combination of an electron microscope having an objective lens along an optical axis enclosed in a vacuum vessel including an evacuated specimen chamber.

Danilatos (006) further discloses an improved differential vacuum system for use in an environmental scanning electron microscope (specimen in ambient air), as seen in Figure 2. For example, in Figure 2 the objective lens has a series of differential chambers (discrete vacuum zones) prior to said specimen having vacuum ports (45,46) (col.6, second paragraph). A high vacuum exists in said column 22 (col.5, second paragraph) followed by said differential vacuum zones (intermediate vacuum passages).

Saffron (391) furthermore teaches that at least one membrane can be utilized between an evacuated electron column and a specimen in outside air (col.1, first paragraph).

It would have been obvious to one of ordinary skill in the art that Danilatos' (006) differential vacuum chambers can be modified to use a membrane means for greater

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efficiency at least between the last intermediate vacuum chamber and the specimen according to the teachings of said secondary reference, if so desired.

3. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danilatos (006) in view of Saffron (391). as applied to claims 1, 3-5, and 9 above, and further in view of Kita (401) and Ejiri (689).

Kita (401) discloses the use of a microscope having multiple objective lenses on a revolving nosepiece. Although the microscope is primarily directed to ultraviolet irradiation of a specimen, Kita seems to suggest the use of the combination of a scanning electron microscope and an ultraviolet microscope as seen in col.1, lines 26-27. Ejiri further discloses the use of a rotating means (4) having multiple objective lenses (5) in which the radiation passing through such may be **light or electrons** (col.2, lines 1-2.

Hence, it would have been obvious to anyone of ordinary skill in the art that one could design a microscope according to Kita and use multiple, electron, objective lenses in accordance with the teaching of Ejiri.

Allowable Subject Matter

4. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Taylor, Suzuki, and Matsui (856)/(183) have been cited to show further differential chambers for SEM's.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRUCE C ANDERSON whose telephone number is 703-308-4851. The examiner can normally be reached on MON.-FRI. 6:15AM-3:45PM (off ALT. FRI.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN LEE can be reached on 703-308-4116. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-2864 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


BRUCE C ANDERSON
Primary Examiner
Art Unit 2881

BCA
April 25, 2002